

Notice of Allowability

Application No.

10/624,736

Examiner

Elizabeth A. Rielley

Applicant(s)

OH, TAE-SIK

Art Unit

2879

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the transmittal letter of 7/21/03.
2. ☒ The allowed claim(s) is/are 1-27.
3. ☒ The drawings filed on 7/21/03 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date <u>both</u> | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Allowable Subject Matter

2. Claims 1-27 are allowed.
3. The following is an examiner's statement of reasons for allowance:

In regard to claims 1 and 15, the closest prior art of record, Yamamoto et al (US 20030001490), teaches a field emission display device (figure 4), comprising: first (1) and second (31) substrates provided opposing one another with a predetermined gap there between (see figure 4); at least one gate electrode (2) formed in a predetermined pattern on the first substrate; cathode electrodes (6) formed in a predetermined pattern, the cathode electrodes including openings (7) that are formed where the cathode electrodes intersect the gate electrode; an insulation layer (5) formed between the at least one gate electrode and the cathode electrodes; counter electrodes (37); emitters (4) contacting the cathode electrodes; at least one anode electrode (32) formed on the second substrate opposing the first substrate; and phosphor layers (33) formed in a predetermined pattern on the anode electrode (paragraphs 85-96 and 121); and wherein predetermined voltages (6015; figure 6; paragraph 182) are applied to the at least one anode electrode, cathode electrodes and the at least one gate electrode generating an electric field between respective gate electrodes and the emitters such that electrons emitted from emitters are induced toward and strike the phosphor layer (33) in a corresponding pixel region to realize predetermined images

Yamaoto et al ('490) is silent regarding the limitations of counter electrodes formed in the openings and

with predetermined dimensions such that predetermined gaps are formed between the counter electrodes and the cathode electrodes; and two of the emitters are provided on opposite sides of each of the counter electrodes, each of the emitters including one long side in proximity to the corresponding counter electrode and two short sides contacting the corresponding cathode electrode.

However, the Prior Art of record fails to teach or suggest the an obvious motivation for providing the missing limitations as set forth in claims 1 and 14, and specifically comprising the limitation of counter electrodes formed in the openings and with predetermined dimensions such that predetermined gaps are formed between the counter electrodes and the cathode electrodes; and two of the emitters are provided on opposite sides of each of the counter electrodes, each of the emitters including one long side in proximity to the corresponding counter electrode and two short sides contacting the corresponding cathode electrode.

4. Claims 2-14 and 16-27 are allowable for the reasons given in claims 1 and 15 because of their dependency on claims 1 and 15.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

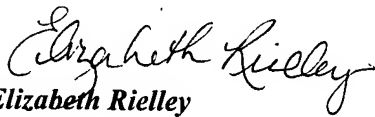
Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth A. Rielley whose telephone number is 571-272-2117. The examiner can normally be reached on Monday - Friday 7:30 - 4:00.

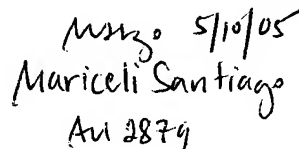
Art Unit: 2879

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar Patel can be reached on 571-272-2457. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Elizabeth Rielley

Examiner
Art Unit 2879


Mariceli Santiago
Art 2879